

ABSTRACT

A process for fabricating ohmic contacts in a field-effect transistor includes the steps of: thinning a semiconductor layer forming recessed portions in the semiconductor layer; depositing ohmic contact over the recessed portions; and heating the deposited ohmic contacts. The field-effect transistor comprises a layered semiconductor structure which includes a first group III nitride compound semiconductor layer doped with a charge carrier, and a second group III nitride compound semiconductor layer positioned below the first layer, to generate an electron gas in the structure. After the heating step the ohmic contacts communicate with the electron gas. As a result, an excellent ohmic contact to the channel of the transistor is obtained.